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EXAMINER

ALBERTALLI, BRIAN LOUIS

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,808

Applicant(s)

BOULANOV, OLEG

Examiner

Brian L. Albertalli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Response to Arguments

1. The affidavit filed on September 20, 2004 under 37 CFR 1.131 is sufficient to overcome the Hatzio (U.S. Patent 6,192,338) reference.
2. Applicant's arguments, see page 9, paragraphs 5 through 7, filed September 20, 2004, with respect to the rejection(s) of claim(s) 1, 14, and 24 under 35 USC § 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Stanford et al. (U.S. Patent 5,615,296), and further in view of Christensen et al. (U.S. Patent 5,881,230).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, 14-18, 22-28, and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanford et al., in view of Christensen et al.

In regard to claims 1, 14, and 24, Stanford et al. disclose a speech recognition system (Fig. 1) and method comprising:

a line of service including:

a first server object (100) coupled to a telephone network for receiving a voice data message from said telephone network (low bandwidth telephony voice data stream, column 8, lines 22-25);

a second server object (front end comprising blocks 102 and 104) having a first connection (connection between 100 and 102) to said first server object (100) for receiving said voice data message from said first server object and converting said voice data message to a phonetic data message (vector quantization block 104 uses Cepstral coefficients converted from the input speech, column 8 line 65 to column 9 line 4; to select the closest codebook values, each codebook value representing phonetic data, column 9, lines 38-48);

a third server object (106) having a second connection (connection between 104 and 106) to said second server object (front end comprising blocks 102 and 104) for receiving said phonetic data message (phonetic time series from front end) from said second server object and converting said phonetic data message to a syntactic data message (phonetic time series is converted to word sequences, column 9, lines 49-51);
and

a fourth server object (108) having a third connection (connection between 106 and 108) to said third server object (106) for receiving said syntactic data message (word sequence) from said third server object and converting said syntactic data message to a semantic data message, which is representative of said voice data message (recognition server converts word sequences to communicate with user applications, column 9, lines 51-53);

Furthermore, Stanford et al. disclose the architecture is independent of hardware configurations (column 7, lines 56-57) and implemented for different levels of operation over a communications network (column 9, lines 58-65).

Stanford et al. do not explicitly disclose that the first, second, and third connections are formed over a first computer network.

Christensen et al. disclose a system for remote objects to communicate over a computer network (Fig. 4 and column 9, lines 10-17).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. so the first (connection between 100 and 102), second (connection between 104 and 106), and third (connection between 106 and 108) connections were formed over a first computer network, as disclosed by Christensen et al., since remote automation allows the physical performance and administration needs of a computer system to be fully addressed without having to give up the logical model, as taught by Christensen et al. (column 13, lines 63-67).

Furthermore, in regard to claim 24, Christensen et al. disclose the physical layering can be changed without changing the logical model (column 14, lines 10-12). For the same reasons as given above, therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to further modify Stanford et al. to combine both the conversion of the voice data message to a phonetic data message and the conversion of the phonetic data message to a syntactic data message in a single speech recognition server.

In regard to claims 2, 15, and 25, Stanford et al. disclose said fourth server object (108) is coupled to a second computer network (connection between 108 and 110) for receiving an application code from a client (110) of said second computer network, said application code providing control data for the operation of said speech recognition system (control data is sent from user applications to request the services of the speech recognition system, column 10, lines 13-18).

In regard to claims 3, 16, and 26, the combination of Stanford et al. and Christensen et al., as applied to claims 1, 14, and 24, above, discloses in Christensen et al. said first computer network is one of a local area network and the internet (column 14, lines 44-47).

In regard to claims 4, 17, and 27, Stanford et al. disclose said second computer network is one of a local area network and the internet (remote procedure calls must necessarily occur over a local area network, column 10, lines 21-25).

In regard to claims 5, 18, and 28 Stanford et al. do not disclose said first, second and third connections are formed from named pipes.

Christensen et al. disclose making connections formed from named pipes (column 9, lines 49-51).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. to form the connections from named pipes, since a

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named pipe can be used by processes that do not have to share a common process origin and the message sent to the named pipe can be read by any authorized process that knows the name of the named pipe, which allows simple method of communicating between unrelated processes.

In regard to claim 22, Stanford et al. do not disclose that the server objects are configured by said according to the Distributed Component Object Model (DCOM).

Christensen et al. disclose that the server objects are configured by the Distributed Component Object Model (column 12, lines 50-54).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. to configure the objects according to the DCOM, since DCOM allows processes to transparently send and receive information so that processing can easily be assigned to different servers as processing resources become available.

In regard to claim 23, Stanford et al. disclose processing said semantic data message in said fourth server object according to said application code (user applications 110 request the services of the recognition server 108, column 10, lines 13-15).

In regard to claim 36, Stanford et al. disclose the speech recognition server (the combination of the front end and back end) an acoustic server object for receiving said

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voice data message from said voice server object and converting said voice data message to said phonetic data message (vector quantization block 104 uses Cepstral coefficients converted from the input speech, column 8 line 65 to column 9 line 4; to select the closest codebook values, each codebook value representing phonetic data, column 9, lines 38-48) and a symbolic server object (106) for receiving said phonetic data message from said acoustic server object and converting said phonetic data message to said syntactic data message (phonetic time series is converted to word sequences, column 9, lines 49-51).

In regard to claims 37 and 38, Stanford et al. disclose the architecture is independent of hardware configurations (column 7, lines 56-57) and implemented for different levels of operation over a communications network (column 9, lines 58-65).

Christensen et al. disclose a system for remote objects to communicate over a computer network (Fig. 4 and column 9, lines 10-17).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. make the voice, acoustic, symbolic and task server objects, as well as the voice server object, speech recognition server, and task server object remote to each other, since remote automation allows the physical performance and administration needs of a computer system to be fully addressed without having to give up the logical model, as taught by Christensen et al. (column 13, lines 63-67).

5. Claims 6-13, 19-21, and 29-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanford et al., in view of Christensen et al., and further in view of Ekrot et al. (U.S. Patent 6,115,713).

In regard to claims 6, 19, and 29, the combination of Stanford et al. and Christensen et al. do not disclose a control monitor for controlling the configuration of said first, second, third and fourth server objects in said line of service.

Ekrot et al. disclose a control monitor (Fig. 3, backup server 200) that controls the configuration of server objects (if one of primary servers 202 and 204 fails, the backup server 200 acts as a server in place of the server that failed, column 5, lines 19-21 and lines 37-42).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Stanford et al. and Christensen to include a control monitor for controlling the configuration of said first, second, third and fourth server objects in said line of service, in order to keep the system functional if one of the server objects failed without taking the system offline.

In regard to claims 7-9, 20, 21, and 30-32, the combination of Stanford et al., and Christensen et al. as applied to claims 6, 19, and 29, does not disclose periodically transmitting a status signal to said system monitor.

Ekrot et al. disclose server objects that periodically transmit a status signal to said system monitor, wherein the transmission of said periodic status signal from said server objects to said system monitor indicates that said server objects is operational,

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and wherein a nontransmission of said periodic signal indicates that one of said server objects is disabled (a heartbeat signal is sent from primary servers 202 and 204 to standby server 200, and when the standby server 200 ceases to receive signals from one of the primary servers 202 and 204, one of the primary servers has failed, column 5, lines 30-37; Furthermore, when one of the primary servers 202 and 204 has failed, the standby server 200 acts as a backup for the primary servers, column 5, lines 37-42).

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combination of Stanford et al., and Christensen et al. to periodically transmit a status signal to the system monitor and to include backup objects for objects that stop sending status signals, so the system as a whole would continue to function even if one of the server objects failed.

In regard to claims 10 and 33, Stanford et al. do not disclose that the server objects are configured by said according to the Distributed Component Object Model (DCOM).

Christensen et al. disclose that the server objects are configured by the Distributed Component Object Model (column 12, lines 50-54).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. to configure the objects according to the DCOM, since DCOM allows processes to transparently send and receive information so that processing can easily be assigned to different servers as processing resources become available.

In regard to claims 11 and 34, the combination of Stanford et al. do not disclose . that each server object include a post office for addressing and routing messages through the line of service.

Christensen et al. disclose that each server object include a post office (RA proxy object application 68) for addressing and routing messages through the line of service (RA proxy 68 uses the network address of the remote computer to route the locally called object to the remote computer, column 9, lines 21-36).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. to include a post office for addressing and routing messages, since a post office manages the ordering a packaging of data to suit the particular network link and protocol, as taught by Christensen et al. (column 10, lines 27-35).

In regard to claims 12 and 35, Stanford et al. disclose additional lines of service connected between said telephone network and said second computer network (several versions of the recognition server are run, column 10, lines 50-52).

In regard to claim 13, Stanford et al. disclose the architecture is independent of hardware configurations (column 7, lines 56-57) and implemented for different levels of operation over a communications network (column 9, lines 58-65).

Christensen et al. disclose a system for remote objects to communicate over a computer network (Fig. 4 and column 9, lines 10-17).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Stanford et al. make the voice, acoustic, symbolic and task server objects, as well as the voice server object, speech recognition server, and task server object remote to each other, since remote automation allows the physical performance and administration needs of a computer system to be fully addressed without having to give up the logical model, as taught by Christensen et al. (column 13, lines 63-67).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baker et al. (U.S. Patent 6,456,974) disclose a distributed method of speech recognition using Java. Van Kommer (U.S. Patent 6,678,659) discloses a system that converts incoming speech from a telephone to a semantic representation for transmission over a network. Kanevsky et al. (U.S. Patent 5,897,616) disclose a system for accessing a remote database through speech recognition. Barclay et al. (U.S. Patent 5,960,399) disclose a client/server speech recognizer architecture. Goldenthal et al. (U.S. Patent 6,112,176) disclose a system for training speech recognizers over the internet. Dragosh et al. (U.S. Patent 6,366,886) disclose a system for providing speech recognition over a packet network. Kanevsky et al. (U.S. Patent 6,615,171) disclose a portable speech recognition device that connects to a

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server over a network. Pascucci et al. (U.S. Patent 5,522,044) disclose a system monitor for a network.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-1817. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 1/3/05



DAVID L. OMETZ
PRIMARY EXAMINER